

We Claim:

1. A user-defined tunable, comprising:
 - a tunable name;
 - an assigned value; and
 - 5 expressions that relate one or more kernel tunables to the user-defined tunable , each of the kernel tunables having a parameter value defined by an expression, wherein a change to the assigned value of the user-defined tunable changes the parameter value of each of the kernel tunables.
2. The user-defined tunable of claim 1, wherein the user-defined tunable is applied to
10 a UNIX[®] operating system, and wherein the user-defined tunable is created by an administrator of the operating system.
3. The user-defined tunable of claim 1, wherein the expression relating the user-defined tunable to the one or more kernel tunables is of the form of an arithmetic expression involving integers and other tunable names.
- 15 4. The user-defined tunable of claim 3 wherein the arithmetic expression is:
$$ktunable=utable*M+N,$$
 wherein M and N are integers.
5. The user-defined tunable of claim 1, wherein the user-defined tunable is changed using kernel configuration tools.
6. The user-defined tunable of claim 1, wherein the assigned value and the
20 expression use C programming syntax, and wherein the assigned value may in one of decimal, octal, or hexadecimal format.
7. The user-defined tunable of claim 1, wherein the user-defined tunable may be deleted.
8. An apparatus that provides user-defined tunables for use in a UNIX[®] operating
25 system, comprising:
 - a system administrator interface, comprising:
 - a user-defined tunable creation option, and
 - a system administrator controlled value assignment option;
 - a tunable repository that stores the user-defined tunables;
 - 30 kernel configuration tools that read the user-defined tunables from the tunable repository and relate the user-defined tunables to a kernel in the UNIX[®] operating system.
9. The apparatus of claim 8, wherein the kernel comprises kernel tunables, and wherein the system administrator interface further comprises means to change values assigned to kernel tunables.

10. The apparatus of claim 9, wherein the means to change values assigned to the kernel tunables comprises an option that allows a system administrator to modify an integer value assigned to a kernel tunable.
11. The apparatus of claim 9, wherein a kernel tunable is related to a user-defined tunable by an expression, and wherein the means for changing values assigned to kernel modules comprises an option wherein a system administrator changes the expression relating the kernel tunable and the user-defined tunable.
12. The apparatus of claim 8, further comprising means for deleting user-defined tunables from the UNIX[®] operating system.
13. The apparatus of claim 8, further comprising means for listing one or more kernel tunables and user-defined tunables.
14. The apparatus of claim 13, wherein the means for listing comprises a verbose option, wherein a complete description of the kernel tunables is presented.
15. The apparatus of claim 8, further comprising a hold option, wherein a user-defined tunable is held until a next boot of the UNIX[®] operating system.
16. A method for implementing user-defined tunables in a UNIX[®] operating system, comprising:
- creating a user-defined tunable; and
 - using an expression, relating the user-defined tunable to one or more kernel tunables.
17. The method of claim 16, further comprising modifying a value of the user-defined tunable, wherein values of the one or more related kernel tunables are changed.
18. The method of claim 16, further comprising modifying the expression relating the user-defined tunable and the one or more kernel tunables, wherein modifying the expression changes values of the one or more kernel tunables.
19. A computer-readable medium having code to implement user-defined tunables in a UNIX[®] operating system, the code when implemented allowing performance of the following steps:
- creating a user-defined tunable; and
 - using an expression, relating the user-defined tunable to one or more kernel tunables.
20. The computer-readable medium of claim 19, wherein the code when implemented allows performance of the additional step of modifying the expression relating the user-

defined tunable and the one or more kernel tunables, wherein modifying the expression changes values of the one or more kernel tunables.